

IRF-1 (F-2): sc-514505

BACKGROUND

Interferon regulatory factor-1 (IRF-1) and IRF-2 have been identified as novel DNA-binding factors that function as regulators of both type I interferon (interferon- α and β) and interferon-inducible genes. The two factors are structurally related, particularly in their N-terminal regions, which confer DNA binding specificity. In addition, both bind to the same sequence within the promoters of interferon- α and interferon- β genes. IRF-1 functions as an activator of interferon transcription, while IRF-2 binds to the same *cis* elements and represses IRF-1 action. IRF-1 and IRF-2 have been reported to act in a mutually antagonistic manner in regulating cell growth; overexpression of the repressor IRF-2 leads to cell transformation while concomitant overexpression of IRF-1 causes reversion. IRF-1 and IRF-2 are members of a larger family of DNA binding proteins that includes IRF-3, IRF-4, IRF-5, IRF-6, IRF-7, ISGF-3 γ p48 (a component of the ISGF-3 complex) and IFN consensus sequence-binding protein (ICSBP).

CHROMOSOMAL LOCATION

Genetic locus: IRF1 (human) mapping to 5q31.1; Irf1 (mouse) mapping to 11 B1.3.

SOURCE

IRF-1 (F-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 305-331 at the C-terminus of IRF-1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514505 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-514505 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

IRF-1 (F-2) is recommended for detection of IRF-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IRF-1 siRNA (h): sc-35706, IRF-1 siRNA (m): sc-35707, IRF-1 siRNA (r): sc-270261, IRF-1 shRNA Plasmid (h): sc-35706-SH, IRF-1 shRNA Plasmid (m): sc-35707-SH, IRF-1 shRNA Plasmid (r): sc-270261-SH, IRF-1 shRNA (h) Lentiviral Particles: sc-35706-V, IRF-1 shRNA (m) Lentiviral Particles: sc-35707-V, IRF-1 shRNA (r) Lentiviral Particles: sc-270261-V.

IRF-1 (F-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

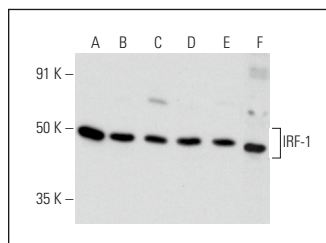
Molecular Weight of IRF-1: 48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

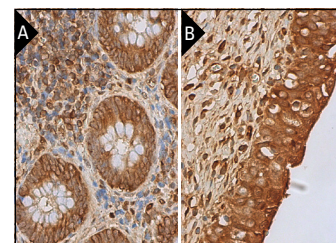
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



IRF-1 (F-2): sc-514505. Western blot analysis of IRF-1 expression in NIH/3T3 (A), HeLa (B), MOLT-4 (C), Hep G2 (D), MDA-MB-231 (E) and THP-1 (F) whole cell lysates.



IRF-1 (F-2): sc-514505. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic and nuclear staining of glandular cells and lymphoid cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and nuclear staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

- Zannetti, C., et al. 2016. Characterization of the inflammasome in human kupffer cells in response to synthetic agonists and pathogens. *J. Immunol.* 197: 356-367.
- Zhu, G., et al. 2017. Sublytic C5b-9 induces glomerular mesangial cell apoptosis through the cascade pathway of MEK2-p38 MAPK-IRF-1-TRADD-caspase 8 in rat Thy-1 nephritis. *J. Immunol.* 198: 1104-1118.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



See **IRF-1 (E-4): sc-514544** for IRF-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.